



SEQUENCE LISTING

<110> Jung, Birgit
Mueller, Stefan
Kraut, Norbert

<120> Method for identifying compounds that inhibit or reduce a chronic inflammatory airway disease in which a macrophage is in a hyperactivated status due to down-regulated p21-activated kinase 2 (PAK2) kinase

<130> 1/1177

<140> 10/029,905

<141> 2001-12-21

<150> US 60/257,854

<151> 2000-12-22

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<170> PatentIn Ver. 2.1

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Primer

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<223> Description of Artificial Sequence: Primer

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<210> 3

<211> 1819

<212> DNA

<213> Homo sapiens

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ccagaaattt ctctccatc tgattttgag cacaccatcc atgttggtt tgatactgtt 180

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<211> 524

<212> PRT

<213> Homo sapiens

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      20              25              30

Ala Asn His Ser Leu Lys Pro Leu Pro Ser Val Pro Glu Glu Lys Lys
      35              40              45

Pro Arg His Lys Ile Ile Ser Ile Phe Ser Gly Thr Glu Lys Gly Ser
      50              55              60

Lys Lys Lys Glu Lys Glu Arg Pro Glu Ile Ser Pro Pro Ser Asp Phe
      65              70              75              80

Glu His Thr Ile His Val Gly Phe Asp Ala Val Thr Gly Glu Phe Thr
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Gly Met Pro Glu Gln Trp Ala Arg Leu Leu Gln Thr Ser Asn Ile Thr
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 145 150 155 160
 Gly Thr Glu Ala Pro Ala Val Val Thr Glu Glu Glu Asp Asp Asp Glu
 165 170 175
 Glu Thr Ala Pro Pro Val Ile Ala Pro Arg Pro Asp His Thr Lys Ser
 180 185 190
 Ile Tyr Thr Arg Ser Val Ile Asp Pro Val Pro Ala Pro Val Gly Asp
 195 200 205
 Ser His Val Asp Gly Ala Ala Lys Ser Leu Asp Lys Gln Lys Lys Lys
 210 215 220
 Pro Lys Met Thr Asp Glu Glu Ile Met Glu Lys Leu Arg Thr Ile Val
 225 230 235 240
 Ser Ile Gly Asp Pro Lys Lys Lys Tyr Thr Arg Tyr Glu Lys Ile Gly
 245 250 255
 Gln Gly Ala Ser Gly Thr Val Phe Thr Ala Thr Asp Val Ala Leu Gly
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 275 280 285
 Glu Leu Ile Ile Asn Glu Ile Leu Val Met Lys Glu Leu Lys Asn Pro
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 Asn Ile Val Asn Phe Leu Asp Ser Tyr Leu Val Gly Asp Glu Leu Phe
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 Val Val Met Glu Tyr Leu Ala Gly Gly Ser Leu Thr Asp Val Val Thr
 325 330 335
 Glu Thr Cys Met Asp Glu Ala Gln Ile Ala Ala Val Cys Arg Glu Cys
 340 345 350
 Leu Gln Ala Leu Glu Phe Leu His Ala Asn Gln Val Ile His Arg Asp
 355 360 365
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 405 410 415

Arg Lys Ala Tyr Gly Pro Lys Val Asp Ile Trp Ser Leu Gly Ile Met
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

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<210> 8
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 <212> DNA
 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: Primer

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 <212> DNA
 <213> Homo sapiens

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<211> 984

<212> PRT

<213> Homo sapiens

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Lys Leu Asp Phe Ser Asp Thr Met Val Gln Gln Lys Leu Asp Asp Ile
      35              40              45

Lys Asp Arg Ile Lys Arg Glu Ile Arg Lys Glu Leu Lys Ile Lys Glu
      50              55              60

Gly Ala Glu Asn Leu Arg Lys Val Thr Thr Asp Lys Lys Ser Leu Ala
      65              70              75              80

Tyr Val Asp Asn Ile Leu Lys Lys Ser Asn Lys Lys Leu Glu Glu Leu
          85              90              95

His His Lys Leu Gln Glu Leu Asn Ala His Ile Val Val Ser Asp Pro
      100              105              110

Glu Asp Ile Thr Asp Cys Pro Arg Thr Pro Asp Thr Pro Asn Asn Asp
      115              120              125

Pro Arg Cys Ser Thr Ser Asn Asn Arg Leu Lys Ala Leu Gln Lys Gln
      130              135              140

Leu Asp Ile Glu Leu Lys Val Lys Gln Gly Ala Glu Asn Met Ile Gln
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Met Tyr Ser Asn Gly Ser Ser Lys Asp Arg Lys Leu His Gly Thr Ala
          165              170              175

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 210 215 220
 His Phe Arg Ile Glu Phe Ala Val Ala Glu Gly Ala Lys Asn Val Met
 225 230 235 240
 Lys Leu Leu Gly Ser Gly Lys Val Thr Asp Arg Lys Ala Leu Ser Glu
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 Ala Gln Ala Arg Phe Asn Glu Ser Ser Gln Lys Leu Asp Leu Leu Lys
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 Tyr Ser Leu Glu Gln Arg Leu Asn Glu Val Pro Lys Asn His Pro Lys
 275 280 285
 Ser Arg Ile Ile Ile Glu Glu Leu Ser Leu Val Ala Ala Ser Pro Thr
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 Ser Thr Val Thr Lys Leu Asp Phe Asp Leu Glu Pro Glu Pro Pro Pro
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 Lys Pro Asp Thr Pro Gln Ser Gly Leu Glu Tyr Ser Gly Ile Gln Glu
 625 630 635 640
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 Lys Lys Gly Asp Ile Val Ala Arg Asp Glu Val Asp Ser Leu Met Cys
 690 695 700
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 705 710 715 720
 Val Asn Leu Phe Ala Cys Phe Gln Thr Lys Glu His Val Cys Phe Val
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 Met Glu Tyr Ala Ala Gly Gly Asp Leu Met Met His Ile His Thr Asp
 740 745 750
 Val Phe Ser Glu Pro Arg Ala Val Phe Tyr Ala Ala Cys Val Val Leu
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 Gly Leu Gln Tyr Leu His Glu His Lys Ile Val Tyr Arg Asp Leu Lys
 770 775 780

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 805 810 815
 Phe Cys Gly Thr Pro Glu Phe Leu Ala Pro Glu Val Leu Thr Glu Thr
 820 825 830
 Ser Tyr Thr Arg Ala Val Asp Trp Trp Gly Leu Gly Val Leu Ile Tyr
 835 840 845
 Glu Met Leu Val Gly Glu Ser Pro Phe Pro Gly Asp Asp Glu Glu Glu
 850 855 860
 Val Phe Asp Ser Ile Val Asn Asp Glu Val Arg Tyr Pro Arg Phe Leu
 865 870 875 880
 Ser Thr Glu Ala Ile Ser Ile Met Arg Arg Leu Leu Arg Arg Asn Pro
 885 890 895
 Glu Arg Arg Leu Gly Ala Ser Glu Lys Asp Ala Glu Asp Val Lys Lys
 900 905 910
 His Pro Phe Phe Arg Leu Ile Asp Trp Ser Ala Leu Met Asp Lys Lys
 915 920 925
 Val Lys Pro Pro Phe Ile Pro Thr Ile Arg Gly Arg Glu Asp Val Ser
 930 935 940
 Asn Phe Asp Asp Glu Phe Thr Ser Glu Ala Pro Ile Leu Thr Pro Pro
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 Asn Gly Lys Asp Tyr Tyr Phe Val Thr Arg Glu Val Met Gln Arg Asp
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 Ile Ala Ala Gly Asp Phe Ile Glu His Ala Glu Phe Ser Gly Asn Leu
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 Tyr Gly Thr Ser Lys Val Ala Val Gln Ala Val Gln Ala Met Asn Arg
 85 90 95
 Ile Cys Val Leu Asp Val Asp Leu Gln Gly Val Arg Asn Ile Lys Ala
 100 105 110
 Thr Asp Leu Arg Pro Ile Tyr Ile Ser Val Gln Pro Pro Ser Leu His
 115 120 125
 Val Leu Glu Gln Arg Leu Arg Gln Arg Asn Thr Glu Thr Glu Glu Ser
 130 135 140
 Leu Val Lys Arg Leu Ala Ala Ala Gln Ala Asp Met Glu Ser Ser Lys
 145 150 155 160
 Glu Pro Gly Leu Phe Asp Val Val Ile Ile Asn Asp Ser Leu Asp Gln
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